



roles and goals

The BA promotes understanding and development of science, engineering and technology and illuminates their contribution to cultural, economic and social life.

The BA is a unique nationwide organisation, with an open membership, dedicated to the communication and appreciation of science. We represent all scientific disciplines, forging links between them and working with them and the public to communicate, discuss and promote all aspects of science and its influence on our lives – something the BA has been doing since its foundation in 1831.



introduction

One of the greatest problems for scientists is keeping abreast of developments in their field. Today the field of science communication provides a similar challenge. The impetus for the 'public understanding of science' movement was the concern by senior scientists that the public had a poor grasp of science and that uptake of science by students was falling. Recently, its importance has become more widely appreciated. Controversies such as GM food, BSE and recently foot and mouth disease have propelled science's relationship with society up the agenda, and made many realise that an engagement with science among people from all walks of life lies at the heart of modern living. The House of Lords Science and Society report in February 2000 set organisations concerned with science communication the task of stimulating a genuine dialogue as a means of addressing this problem.

Fortunately the BA is well placed to explore ways of achieving this dialogue by building on its existing initiatives. At the same time, the BA will seek new forms of engagement, new audiences and new arenas. Only by trying out new ideas can the culture change demanded by their lordships be achieved and the BA recognises that a fear of failure should not inhibit it.

The key to success is to be innovative and ambitious. Last year in creating SPARKS, the BA demonstrated these qualities with a successful event that embraced the arts and sciences as never before. 'SPARKS' also showed how the BA can work with different organisations and individuals for a common purpose.

An important area of collaboration in the next 12 months is Science Year, for which the BA is a strategic partner, working closely with NESTA, the National Endowment for Science, Technology and the Arts and the Association for Science Education.

These and other relationships enable the BA to punch above its weight. We are particularly indebted to three organisations in particular – the Office of Science and Technology, the Wellcome Trust and the Royal Society – whose core support for the BA makes much of our work possible.



highlights in the BA's year

National Science Week

National Science Week is all about luring scientific organisations out into their community. The BA provides the bait by providing the national profile. In 2001, we enlisted the help of 5-year-old Tia, who went head to head with an astrologer,



a banker and the FTSE 100 over 9 days. The experiment devised by psychologist Richard Wiseman is unlikely to make past the peer review process at Nature but it succeeded wonderfully in raising the awareness of the Week and the BA. The experiment featured five times on national television, including one live and in over

The BA is a frugal organisation but for once we were happy to see money being thrown around.

600 national and regional newspaper articles. By enhancing the national profile, local organisers will find it easier to market their events and attract the crowds.

National Science Week in 2002 will focus on bringing the best out of local events, supporting organisers to help them bring science to the widest possible audience.

AlphaGalileo

From its humble origins on the back of an envelope, the AlphaGalileo internet press service has always been conceived as a pan-European project, reflecting the fact the UK shares many of its science communication problems with its mainland neighbours. French and German versions of the site had already appeared but its birth as a fully fledged international project only came in July 2001 when it received £0.5 million from the European Commission Framework 5 programme, which enabled it to set up national offices in Finland (Suomen Akatemia), France (Association française pour l'avancement des sciences), Germany (Forschungszentrum Jülich GmbH), Greece (the National Hellenic Research Foundation), Portugal (Observatório das Ciências e das Tecnologias) as well as the UK, where the BA will work with the Central Laboratory of the Research Councils.

Until now, many of the contributors and journalists who use the site have been from the UK. This strengthened presence in other countries should enhance the coverage of science in, and about the research of, these other countries.

Science Year

The BA has been appointed a strategic partner in the government's Science Year initiative. Science Year will explore new ways of thinking about science communication in the UK and the BA will apply its experience of informal science education through science clubs and award schemes that complement and enhance the science curriculum and through numerous activities aimed at adults.

The main target audience for Science Year is 10-19 year olds and the adults that influence them. The BA will develop its existing activities for young people, such as BAYS Young Investigators, BA-CREST awards and Science Communicators, focusing on the broader issues of science through a variety of communication methods. By working with the burgeoning science centre network – ECSITE UK – the BA will create a nationwide system of science clubs that interweave existing schemes such as ours together within them.

The BA's strategy is to enhance existing activities and bring them to new audiences throughout Science Year. New activities include mass participation experiments, the first of which is Laugh Lab (www.laughlab.co.uk), created in partnership with the University of Hertfordshire, an on-line experiment to find the nation's funniest joke and the psychology behind it. A touring production looking at ethical issues in genetics, aimed at 14 year olds will be around the country in March. To round off Science Year, the BA is running a conference on 'the future of science in society', at the Festival of Science in September 2002. The event will bring together the movers and shakers in education, science communication and government and take a hard look at the effects of the formal and informal education sectors on attitudes to science and the

challenges it poses to society. This will be a fitting end to Science Year and a means of flagging some of the issues that will make the sentiments of Science Year sustainable. In this review, look out for the 'Enhanced for Science Year' areas.

New homes and domains

The BA can look forward to a purpose-built home for the first time in its history when the Wellcome Wolfson Building opens in 2003 at the Science Museum in South Kensington, London. The building, designed by Sir Richard MacCormac (who was also responsible for the Science Museum's Wellcome Wing), finally made it off the drawing board with the generous funding from The Wellcome Trust, The Wolfson Foundation, The Dana Foundation and the Garfield Weston Foundation. The Centre will provide a lively venue for the British public to engage in a genuine dialogue with the scientific community. It will be a place where adult audiences can question and challenge developments and directions in contemporary science, and can voice their hopes and fears about current issues.

The BA already has a new virtual home – at www.the-ba.net. It's more than a new address, however, as 2001 has seen the first stage of the BA's new dynamic website which will provide many new services, especially for BA members and partners, alongside a comprehensive guide to the BA's work.



Creating Sparks

Nine organisations, 450 events, 250,000 people and 28 days of exploring creativity in science and the arts – this was creating SPARKS. Almost 150 years after Albertopolis was built, an unprecedented collaboration led by the BA brought together the Imperial College, the Natural History Museum, the Science Museum, the Victoria and Albert Museum, the Royal College of Art, the Royal College of Music, the Royal Geographical Society and the Royal Albert Hall. The centrepiece of creating SPARKS was the BA Festival of Science, presided over by HRH The Princess Royal, in which 400 of the best scientists and science communicators spoke and took part in debates and discussions. The Festival straddled the start of the school term, which affected the attendance of sixth formers, but adult attendance was up on Sheffield in 1999. As the most established science festival in country, the BA Festival has many stakeholders. This includes BA members of course, but also other scientific societies, research councils, science communicators and businesses with whom we've had along-standing relationship. After the 2000 Festival at



Imperial College, the BA invited comment from members, through The Banter newsletter, and held a discussion meeting. Many constructive ideas have been put forward which will be used to develop the Festival in the future.

Other highlights were the Big Bazaar, for which Exhibition Road was closed to traffic for the first time for such an event. Local residents were won over by a combination of choreographed abseilers down The Natural History Museum, a floating heliosphere swooping down on the crowd and the 'Mass and individual moving' enormous roving machines.

Stargazers featured big names from science and the arts discussing their ideas and motivations. A highlight was Buzz Aldrin in conversation with Peter Snow, which drew around 450 people. In the creating SPARKS experiment, the stars were the world's only fully terrestrial crustaceans – woodlice. The aim was to recruit people from all over the country to find out more about these reclusive creatures. No doubt much fun was had leaving no stone unturned, and 1,500 usable data sets were submitted to the delight of the Natural History Museum's isopodologists. It's not too late to take part – go to www.nhm.ac.uk/interactive/woodlice.

communicating science live

Science communication is changing and the BA is changing science communication. New events, and new types of event, are bringing science into new arenas with new audiences. Two years ago Science & Public Affairs Forums were launched. In this time the BA has refined the format whereby our regular chair, Clive Cookson of

the Financial Times, can marshal impassioned discussion on difficult scientific issues.

In the last year the BA brought science into its local bar and sciBARs were born. The first in November 2000 brought Professor Colin Blakemore face

to face with the Soho regulars on the theme 'Science - can we risk it?' Colin reckoned we could, but there was a lively audience, not all of whom agreed with him.

If proof were needed that the venue matters, it was provided in December when, within seven days, the BA tackled climate change twice in a week, less than a mile apart, at a sciBAR and a Science & Public Affairs Forum. The two events were very different: while the Forum tackled more political, global and scientific issues, the sciBAR participants wanted to talk about what climate change meant to them and what they could do about it.



The BA's branches and regional offices are already active in all parts of the country. The BA North West Branch, for example, organises a BA mini-festival in October every year. It includes events for both adults and children, and a combination of talks on a variety of different sciences, demonstrations and fun things to do. Highlights in 2000 included talks on scuba diving for marine-biology samples, a demonstration of equipment which allows the blind to 'see' shapes based on changes in sound and, for children, extracting DNA and pond dipping. The BA is grateful for the superb support that the branch gets from Daresbury Laboratory.

Like any good scientific organisation, the BA is always looking to experiment. The BA Festival of Science in Glasgow features the first x-change. Here, Quentin Cooper will report back from different sessions each day and raise with Festival-goers some of the big issues he's encountered. In the coming year, the BA will be researching new ways of bringing science to new audiences.

Enhanced for Science Year: From September 2002, the BA will be expanding its programme of sciBARs to take encompass the whole country. National Science Week 2002 will be bigger and better than ever before with more events around the country.

communicating science communication

To complement its own activities, the BA aims to facilitate the work of others. The Science Communicators' Forum and Building Bridges to Science are established parts of the science communication calendar. Each brings the theoretical and the practical together as part of the community's efforts to merge science and society. At Building Bridges at the Edinburgh Science Festival in April, science communicators took the opportunity to discuss how the public can be engaged in a true scientific dialogue. BA President Sir William Stewart presented his experiences based on his chairmanship of the Government's Working Group on the safety of mobile phones. Delegates also discussed the future direction of COPUS – Committee on the Public Understanding of Science.

Media Fellowships aim to increase dialogue between scientists and the media by giving scientists the opportunity to experience life as a journalist during a 6-8 week placement, allowing them to build on their skills and experiences when returning to their organisations. 2001 sees new placements at Einstein TV, Focus magazine and the Irish Times.

The Award Lectures scheme aims to nurture vocal communication skills by giving younger science communicators the chance to deliver a prestigious award lecture at the high profile BA Festival of Science. Plans are being developed to introduce awards for excellence in science communication throughout the year. This mirrors the highly successful introduction of the Young People's Programme's 'Science Communicators' which provides the impetus to school students to express scientific ideas to others. The coming year will see the publication of the first Science Communicators activity pack.



communicating science to young people

'This Hall was erected for the Advancement of the Arts and Sciences, and works of industry of all nations, in fulfillment of the intentions of Albert, Prince Consort'.

This statement describes the purpose of the Royal Albert Hall when it was built for the Great Exhibition of 1851. For those who have felt that the arts have been more advanced than the sciences by the great arena, the balance was at least partially restored in September 2000 when Baysday brought 4,500 pairs of hands onto science. Literal highlights included birds of prey circling beneath the dome. This was the first time animals had been allowed in the Hall for 100 years (unless you count professional wrestlers) and its regulations had to be altered for the purpose. Torrential rain and fuel blockades proved a minor irritation.

Enhanced for Science Year: National Baysday in March 2002 will be extended to include a Science Discovery Day with hands on activities and workshops for students aged 10-19 at the Royal Albert Hall in London.

The BA was responsible for Eurovisions in November 2000. No, the BA hasn't turned to promoting Estonia's finest musicians.



Climate change was the subject for an international Visions for the Future, which welcomed young people from six nations to the Met Office in Bracknell. Widespread flooding around the UK provided a suitable backdrop to the discussions. BBC meteorologist Helen Young helped the delegations get to grips with the complex issues surrounding climate change and articulate their own views and ideas on this most important of issues.

Enhanced for Science Year: Visions for the Future – Live and Online – will step up its activities, providing more opportunities to express their views on our scientific lives.

For the BA CREST Awards, which recognise practical achievements in science for 11-19 years olds, it has been year of consolidation after last year's transition from ASSET to the BA. The number of students taken part had fallen slightly, but thanks to close collaboration with the SATROs, uptake is on the increase again. The CREST year again reached a climax in July at Loughborough University, with exciting projects on display in the Environment Research Challenge and AstraZeneca Science Programme categories. The new AstraZeneca Inspiring Science pack has been launched (also at www.inspiringscience.co.uk) and has been well received by teachers.

Enhanced for Science Year: extra staffing in the BA-CREST awards office will help develop the scheme. An important area will increasing the transition of pupils from Young Investigators to BA-CREST awards. Science Year will enable the BA to encourage more schools to get involved with CREST, getting the message across that it is a valuable means of accrediting students' project work.

First Investigators and Young Investigators continue to thrive, providing practical-based awards of 5-8 and 8-13 year olds respectively.

Enhanced for Science Year: There will be more material and resources to help more young people to take part in our First Investigators and Young Investigators. The BA has challenging targets for the numbers taking part in these activities.

partnerships with the BA

The BA is not a large organisation, but it is an effective one and punches above its weight because it forges partnerships: partnerships with individuals; partnerships with scientific and educational organisations; and partnerships with business.

As a national, open-membership organisation, the BA is unique.

In the last 3 years, individual membership has almost doubled. This is not by accident; it has been achieved by a concerted effort fuelled by the realisation that the BA's objectives can best be met at community level. BA members are the foot soldiers in the campaign to spread awareness of science and its implications.

If BA members are the soldiers, then its networks of regions and branches are its battalions and regiments. The BA has regional offices in each of the 13 government regions. They are at the forefront of the BA's efforts to increase its number of branches, by bringing together enthusiastic individuals and supporting them. Branches bring individual members together, providing a focal point for their activities and a channel for their enthusiasm. New branches in the past year have been created in Devon, Derby, Cambridge, and Surrey and Sussex, bringing the total to 24. More than 10 are in formation, the locations of which we will reveal during the coming year. Individual branches are active in forging their own links. The North Wales Branch has been active in making the Wrexham Science Festival a success

The BA brings its members together through the Banter, a monthly newsletter launched in April 2000. It demonstrates that the BA is about people and how we can work together to make science a central part of the British way of life.

Over 100 not-for-profit organisations and over 30 businesses are affiliated to the BA. They do this because our aims are shared by many institutions and they appreciate that working with the BA is an excellent way of advancing towards those objectives.



communicating policy

The BA is not a policy-making organisation. This is not to say that it is not interested in policy relating to science. But while there are many organisations who, quite rightly, express their views on the scientific issues of the day, the BA draws strength from the fact that it is independent. The BA's Science & Public Affairs magazine provides a balanced and wide-ranging update on everything from stem cells to National Missile Defense and from climate change to technology transfer. Its readers can be confident that, like the BA, its policy is to promote awareness of the issues and not to tell anyone what to think.

The BA will express its views on the relationship between government and science and society. It regularly responds to government and parliamentary consultations, expressing its view that openness, transparency and a willingness to share ideas and risks with society are necessary to bring science to the heart of our democracy.



communicating science online

As the worldwide web grows in capacity and sophistication, organisations such as the BA are increasingly able to use it to provide information and services to a potentially huge audience. In the past year, the BA has been developing a new and powerful website that will serve its community but will give particular attention to providing new benefits to its members.

The site has been designed to help all users, whatever their awareness of the BA and its activities.

A challenge for the site will be to unlock the potential of the internet as a medium for debate about science and its implications. Already Visions Online, the virtual manifestation of the BA's Visions for the Future programme, has brought young people online at www.visionsonline.org to express their views on climate change and contraception. High on the BA's agenda is to expand the discussions from its live events on to the internet, broadening their appeal and impact.

